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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-----------------|----------------------|-------------------------|------------------|
| 09/653,202 | 08/31/2000 | Sang-Seok Lee | 8733-291-00 | 4707 |
| 30827 | 7590 04/23/2003 | | | |
| MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006 | | | EXAMINER | |
| | | | DUONG, THOI V | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2871 | |
| | | | DATE MAILED: 04/23/2003 | 3 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | M C | | | | |
|---|---|---|--|--|--|--|
| - | Application No. | Applicant(s) | | | | |
| | 09/653,202 | LEE ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Thoi V Duong | 2871 | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a rep If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statut - Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b). Status | 136(a). In no event, however, may a reply be tin by within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from the, cause the application to become ABANDONE | nely filed rs will be considered timely. the mailing date of this communication. ED (35 U.S.C. § 133). | | | | |
| 1) Responsive to communication(s) filed on 12 | February 2003 | | | | | |
| 2a)⊠ This action is FINAL . 2b)□ TI | his action is non-final. | | | | | |
| 3) Since this application is in condition for allow | | | | | | |
| closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims | | | | | | |
| 4) Claim(s) 1-12 is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-4,8 and 9</u> is/are rejected. | | | | | | |
| 7)⊠ Claim(s) <u>5-7 and 10-12</u> is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or election requirement. | | | | | | |
| Application Papers | | | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner. | | | | | | |
| If approved, corrected drawings are required in reply to this Office action. | | | | | | |
| 12) The oath or declaration is objected to by the Examiner. | | | | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | | | | | | |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | |
| a) ☑ All b) ☐ Some * c) ☐ None of: | | | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| 14) ☐ Acknowledgment is made of a claim for domes | · | | | | | |
| a) The translation of the foreign language pr | ovisional application has been rec | ceived. | | | | |
| 15) Acknowledgment is made of a claim for domes Attachment(s) | suc priority under 33 U.S.C. 99 120 | Janu/ULIZI. | | | | |
| 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s) | | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) | 5) Notice of Informal | Patent Application (PTO-152) | | | | |

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DETAILED ACTION

1. This office action is in response to the Amendment, Paper No. 7, filed February 12, 2003.

Currently, claims 1-12 are pending in this application.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-4, 8 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Related Art (Figs. 3 and 4) in view of Miwa et al. (USPN 6,317,186 B1) for the same reasons set forth in the last office action.

Allowable Subject Matter

4. Claims 5-7 and 10-12 stand objected to for the same reasons set forth in the last office action.

Response to Arguments

5. Applicant's arguments filed 02/12/2003 have been fully considered but they are not persuasive.

Applicant argued that Miwa does not teach or suggest a seal pattern having a shape of a triangle with all three vertexes rounded with a radius and that Miwa fails to teach or suggest "the seal pattern having a plurality of U-shaped portions being bent toward an inside of the substrate." The Examiner disagrees with the Applicant's remarks

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because, as shown in Fig. 7(b), the seal pattern has a shape of a triangle having all three vertexes rounded with a radius, wherein the vertex on the x direction and the vertex on the y direction are directed toward an inside of the substrate. The seal pattern in Fig. 7(b) also has a plurality of U-shaped portions wherein the portion on the x direction and the portion on the y direction are bent toward an inside of the substrate 20.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (703) 308-3171. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (703) 305-3492.

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Thoi Duong

04/18/2003

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